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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,053	12/02/2003	Tadahiro Kegawara	Q78706	2949
23373	7590	10/27/2008	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			WOLLSCHLAGER, JEFFREY MICHAEL	
			ART UNIT	PAPER NUMBER
			1791	
			MAIL DATE	DELIVERY MODE
			10/27/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/725,053

Applicant(s)

KEGASAWA ET AL.

Examiner

JEFFREY WOLLSCHLAGER

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 15, 2008 has been entered.

Response to Amendment

Applicant's amendment to the claims filed August 26, 2008 has been entered. Claim 1 is currently amended. Claims 6-17 have been canceled. Claims 1-5 are pending and under examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wenz Jr. (US 4,731,004).

Regarding claim 1, Wenz Jr. teaches a method of side-by-side co-extrusion using multiple materials wherein a main resin B and a second resin A for edge portions (Figure 1; col. 1, lines 12-17) are brought together such that resin A encloses the edges of resin B and wherein the combined resins are extruded through a die to form a resin film (Figure 6). Wenz Jr. teaches that no intermixing between the resins can be achieved and forming a boundary between the resins (Figure 1; col. 3, lines 21-29). Wenz Jr. further teaches that the process allows for tapering or fading of the materials (col. 3, lines 43-64; col. 9, lines 18-21 and col. 9, lines 44-48) to be precisely determined as required. The examiner submits that the teaching of Wenz Jr. reasonably suggests the shape of the resin interface is readily optimized to form the desired appearance and that the tapering and fading of the one resin into the other resin implies forming a convex shape and concave shape of the other resin. Additionally, since the main resin B layer has an exposed layer on both top and bottom the second resin A is understood to only enclose the side edges of the main resin. The examiner submits that Wenz Jr. has effectively established the shape of the resin interface as a result effective variable that would have been readily optimized.

As to claims 2, Wenz Jr. teaches the viscosity/melt flow rate of the differing resins is employed as a variable to effect the interface between the resins (col. 8, lines 60-67).

As to claim 3, Wenz Jr. teaches controlling the flow rate of the materials (col. 2, lines 36-40; col. 9, lines 25-28).

As to claim 4, Wenz Jr. teaches the viscosity of the material impacts the interface between the resins. As the viscosity of a material is dependent upon its temperature, the examiner submits one having ordinary skill in the art would have readily adjusted the temperature to control the viscosity in view of the teaching of Wenz Jr.

As to claim 5, Wenz Jr. teaches controlling the width of each material (col. 2, lines 40-42; col. 3, line 65-col. 4, line 6).

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peiffer et al. (US 5,716,570) in view of Wenz Jr. (US 4,731,004).

Regarding claim 1, Peiffer et al. teach the basic claimed process of producing a plastic film wherein a main resin B is enclosed only on the side edges by resin A to form a boundary and extruding the resins through an extruding die (Abstract; Figure 3 and 3a). Peiffer et al. do not teach the main resin has a convex shape and the side edge resin has a concave shape. However, Wenz Jr. teach a method of side-by-side co-extrusion to form a film wherein the shape of the interface between the resins is controlled and adjusted as required to achieve a desired appearance (col. 3, lines 21-64).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Peiffer et al. with the teaching of Wenz Jr. and to have optimized the shape of the interface between the resins for the purpose as taught by Wenz Jr. of meeting customer demands and providing a desired appearance (col. 3, lines 43-51; col. 9, lines 18-24 and 43-48). The examiner submits that Wenz Jr. has effectively established the shape of the interface between the two resins as a result effective variable.

As to claims 2-5, Wenz Jr. teaches controlling viscosity, flow rates and widths (col. 8, lines 60-67; col. 2, lines 36-40; col. 3, line 65-col. 4, line 6; col. 9, lines 25-28) to control the interface between the resins.

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Peiffer et al. with the teaching of Wenz Jr. and to have utilized viscosity, flow rates and width to control the interface between the resins for the purpose of achieving a desired product appearance.

Claims 1, 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoagland et al. (US 3,825,383) in view of Peiffer et al. (US 5,716,570).

Regarding claim 1, Hoagland et al. teach a method of producing a multi-layered film wherein a main resin 60 and a secondary resin 61a and 61b are brought together before they are extruded through a die wherein there is a boundary between the layers and the main portion of the resin has a convex shape and the secondary resin has a concave shape (Figure 9; col. 2, lines 5-28; Example 1 and Example 2). Hoagland form a film that is flattened in the die such that the secondary resin layers form a top and bottom portion not edge portions. However, Peiffer et al. teach that in film forming extrusion processes the films that were conventionally only provided on the top and bottom of the multilayered film (Figure 2) can also be formed as edge resins (Figure 3).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Hoagland and to have formed a film with the secondary resin on the edge portions as suggested by Peiffer et al. for the purpose of producing additional film products and for the purpose of facilitating recycling of edged trim film and reducing operational costs.

As to claim 3, Hoagland teaches controlling the ratio of the resin feed rates (col. 4, lines 60-66).

As to claim 4, Hoagland employ different temperatures for the different resins (col. 5, lines 11-19).

Response to Arguments

Applicant's arguments filed August 26, 2008 have been fully considered, in view of the amendment to the claims, and they are partially persuasive. Accordingly, the rejection of Peiffer et al. in view of Nishimoto has been withdrawn. However, applicant's arguments regarding the other rejections of record have been fully considered, but they are not persuasive.

As an initial matter, the examiner notes that the amendment to claim 1 merely requires the resins be fed through a feed block which includes a joining part having a specific cross-sectional shape to achieve the claimed result. If the cross-sectional shape is adequate to achieve the desired configuration of the resins (e.g. concave and convex), the limitation is met. As such, in general, the examiner notes that the prior art references applied in this rejection, are understood to meet the amended limitation as long as they have a joining part that forms a cross-sectional shape. The examiner notes that the amended limitation does not require a cross-sectional configuration such as that set forth in applicant's Figure 3 be employed to produce concave and convex shapes as those set forth in Figure 4.

Applicant argues that Wenz Jr. do not teach a second resin that encloses the first resin at both sides. This argument is not persuasive. The examiner notes Figure 4 in Wenz Jr. and further submits that the teaching of Wenz Jr. clearly suggests/implies splitting the streams up with barriers in a variety of manners to achieve a desired film. Further applicant argues that the comingling of Wenz Jr. is different than the enclosing of the present invention. This argument is

not persuasive. The examiner submits the claim requires a boundary between the resins and a convex and concave shape. The examiner submits the control of the taper and fade set forth in Wenz Jr. clearly suggests the argued limitation (col. 3, lines 21-29 and 43-51; col. 6, lines 36-53) under a very reasonable interpretation of the claim language. Similarly, applicant argues that Wenz Jr. do not teach enclosing the side edge of the middle resin. Again, this argument is not persuasive. The examiner submits that the control of the taper, fade, overlap and intermix set forth by Wenz Jr. suggests the limitation under a reasonable interpretation of the claim language. Finally, applicant argues that Wenz Jr. does not disclose the claimed feeding block. This argument is not persuasive. The examiner notes that the cross-section created by the feeding block with the barrier of Wenz Jr. reasonably meets the argued limitation. The examiner notes that the limitation does not require the specific cross-sectional shape be the same as that set forth in Figure 3 of the instant application.

Applicant argues that Peiffer does not disclose enclosing polymer B with polymer A. This argument is not persuasive. The examiner notes that the combination is with Wenz Jr. and that Wenz Jr. teaches and suggests the argued limitation.

Applicant argues that Hoagland does not disclose enclosing only both side edges in the crosswise width direction. This argument is not persuasive. The examiner notes that the combination is with Peiffer who essentially teaches the orientation of producing multi-material/multi-layered films can be changed from the orientation taught by Hoagland and provided such that the top and bottom layers become side edges (e.g. Figure 2 of Peiffer vs. Figure 3). As such, the examiner submits the combination suggests re-orienting the film and equipment of Hoagland such that the top and bottom layers become side edges.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY WOLLSCHLAGER whose telephone number is (571)272-8937. The examiner can normally be reached on Monday - Thursday 6:45 - 4:15, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeff Wollschlager/
Examiner, Art Unit 1791

October 31, 2008